

THE
LOUISVILLE MEDICAL NEWS.

"NEC TENUI PENNÂ."

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Original.

THE MORPHOLOGY OF PHTHISIS PULMONALIS.*

BY EDWARD T. BRUEN, M.D.

The etiology of phthisis is very properly exciting careful attention at present, but the subject is in far too unsettled condition to permit even a useful discussion. I shall not therefore allude to it, and I feel that I must offer an apology for the triteness of the subject matter of my paper, but I was informed that it was designed to have a series of discussions upon familiar pathological conditions. With this understanding my scruples have been overcome. A consideration of special interest seems to me to be connected with the morphology of primary tubercle. In certain individuals, owing to inherited tendency or particularly unfavorable surroundings, recovery, after bronchitis due to cold, is retarded or a susceptibility to a new bronchitis is increased. In either case lingering catarrh, in the majority of instances, is the inception of the series of pathological processes known as phthisis pulmonalis. Two microscopical appearances nearly identical occur, but they differ materially in their microscopic anatomy. Certain so-called miliary tubercles are frequently composed only of the inflammatory products of connective tissue without the characteristic true tubercular arrangement. The word miliary expresses their appearance, but the inflammatory products may be so arranged as to represent true tubercle, pseudo-tubercle, or a diffuse inflammation. This tubercle or pseudo-tubercle is constant in the different forms of phthisis in the adult, except in the instance of pure interstitial pneumonia. Frequently the amount of tubercle tissue in the lungs is so great as to form the principal part of the process, although complicating inflammatory cheesy products are also present.

Classification of Phthisis. The term tuber-

*Read before the Pathological Society of Philadelphia.

cular peri-bronchitis is probably the best for the earliest stage of phthisis, and sometimes is the best to designate the process all the way through. The appearance of the peri-bronchial tissues resembles berries on a stalk. The formation extends along the bronchi, spreading from acinus to acinus until the trunk is reached, and is also distributed in the sheaths of vessels and lymphatics. True tubercle may penetrate a bronchus and involve the lining membrane, and a true tuberculous ulcer may form the basis of an extensive associated bronchitis. Aside from this, these infiltrations excite inter-lobular connective-tissue growth, and subsequently the walls of the vesicles become thickened, and some vesicular catarrh ensues which may occlude a lobule. Thus the three divisions of the pulmonary tissue share in the pathological process of early phthisis. The cause of more than nineteen twentieths of vesicular consolidation is the result of a process of desquamative pneumonia. This term is used to describe the diffuse inflammation which may accompany the former processes, and which, more than the other changes, paves the way for the disintegration of the lung. In this process the peripheral epithelial cells of the bronchi are proliferated and shed, thus filling the bronchi and infundibula, while the surrounding connective tissue becomes infiltrated with cells. In children this process is a common one, on account of the greater cellular activity in these subjects. In the desquamative catarrhal pneumonias of early life the process differs from the desquamative pneumonias of adults, in that the air-cells only are filled, and there is little or no change in the inter-vesicular tissue. Hence it is that recovery is so much more frequent in children than in adults. This process of desquamative catarrh is the basis of those cases of acutely developed phthisis which follow croupous or catarrhal pneumonia, and which has been called acute catarrhal phthisis or galloping consumption—sometimes pneumonic phthi-

sis. When the pathological process just described is less rapid, the result which follows has been classed by some as acute caseous pneumonia. When the changes are still more slowly developed, it is synonymous with the chronic catarrhal pneumonia.

The relative development then of these processes known as phthisis in the three divisions of the pulmonary tissues, the bronchial, the inter-lobular, and the vesicular, is dominated by the activity of the inflammatory process, peri-bronchitis with consecutive changes in the latent forms, desquamative pneumonia in the more acute forms, while a process presently to be alluded to, interstitial phthisis, occurs as a very slowly developed change. In many of these cases, when the destruction of the lung is very rapid, the tubercular deposition, true or pseudo, occurs in early stages, but is masked in the later by the development of the secondary inflammatory desquamative pneumonic processes. The situation at which phthisis is developed is probably most frequently the apex. The forces of expiration presumably are least efficient at this site, and the lungs are less entirely freed from mucus. The circulation also is less active than at the roots, and the products of inflammation are therefore more dry. The roots of the lungs, however, in a large majority of cases, are primarily affected. This is especially true of cases in which the original processes of invasion are latent.

I pause here to observe a clinical point of some interest, viz: When the area of lung involved in the process of phthisis is distinctly limited and does not shade off gradually into healthy lung, my opinion is that a favorable result may be very possible. Certainly I have seen the process of phthisis arrested even when it had passed into the stage of cavity, when the lesions were sharply defined. The localization of a lesion, other things being equal, is a point of favorable prognosis. Another topic of interest is the share taken by pleurisy in the development of phthisis. A specimen already exhibited before the society, is again shown to-night. It is taken from a colored man seventy years old, with a family history free from the taint of pulmonary disease. He was tapped five times for the relief of hydrothorax due to heart failure. Each paracentesis was followed by an exacerbation of pleurisy. Nine months after the first operation, death occurred from an increase of hydrothorax. The autopsy disclosed general miliary tuberculosis of the pleura and secondary deposits in the viscera. Throughout the parenchyma of the

lung adjacent to the pleura there was a copious deposit of tubercle, but the other parts of the lungs were normal. Another specimen exhibits the same tendency, general pleurisy, with phthisis and cheesy deposit in the pulmonary parenchyma, with cavities. The deposits are most abundant near the pleural surface of the lung, the deeper parts evidencing a more recent formation.

These specimens show that pleurisy may give origin to a tuberculous inflammation. But while this is true it is conceded by all that dry pleurisy is a frequent secondary lesion in the progress of pulmonary tuberculosis. Pleurisy is, however, in many cases very conservative, since by the thickening and adhesion of the pleural surfaces the ulceration of the walls of superficial cavities is arrested and pneumothorax prevented. Interstitial phthisis or cirrhosis is a process in which true or pseudo tubercle may or may not be associated. The pulmonary tissues are traversed by narrow bands of connective tissue which may gradually compress it more and more, finally converting it into dense fibrous masses. The color of the lung is apt to be slaty and dark. However, in some cases of interstitial phthisis patches of the peri-bronchial and desquamative pneumonia may be found with cheesy degeneration. Interstitial formation is an important part of the process by which cavities are inclosed and sometimes cicatrized.

Distribution. Interstitial phthisis, if consecutive to bronchitis, is usually bilateral, affecting the upper lobes, although as a unilateral affection it is not infrequent.

Syphilitic Phthisis. It is of interest to note in this connection that the early lesions of syphilitic phthisis, so called, are evoked very often by bronchial catarrhal inflammation, which predisposes to stricture changes. In these cases there is a principal interstitial fibro-nuclear growth commencing in the alveolar walls and concentrically arranged around the smallest bronchi and pulmonary vessels. Wagner maintains that the alveolar wall is implicated as commonly in syphilis as in ordinary phthisis. Bronchial narrowing occurs in these cases by the pressure of the new growth which develops along their lumen. Bronchial occlusion may occur from this new formation, but it is also caused by the enlarged bronchial glands, one of the effects of syphilis. By this means serious mischief in the lungs may be developed, in kind proportioned to the degree of obstruction, such as atelectasis, emphysema, and certain forms of pneumonia. Green and

Virchow suggest that the origin of syphilitic diseases of the lung is distinctive in this respect; that while in ordinary phthisis the fibroid is secondary or co-equal in its development with changes in the alveoli and alveolar wall, in syphilis there are primarily principal interstitial changes. Later, when entire vesicular consolidation and breaking down occurs, the process is similar to ordinary phthisis, and indistinguishable from it. The vascularity of the new growth of connective tissue is also claimed to be a distinctive characteristic of the inflammatory proliferation due to syphilis. But we must remember, in any discussion of early syphilitic lung disease, that the one special and characteristic lesion of syphilis is the change in the intima of the blood vessels. This has not yet been demonstrated in the lung, but merely general thickening of the external coat of the vessels. In the effect of interstitial processes upon the bronchial tubes the syphilitic differs from the non-specific disease. The tough, contracting fibrous tissue which radiates through the lung draws together the bronchial tubes, and deforms by narrowing or flattening them, possibly even to obliteration. On the contrary, in the forms of non-syphilitic fibroid phthisis the bronchial tubes are widened. The process proceeds in syphilis from the hilus into the interior of the lung, following the tract of the bronchial radicals and the bronchial arteries. The lesions also occur on the surface, near the visceral pleura, where there is also more connective tissue. Gum-mata occurs as a later process. Time will not allow me to allude to these as I should like.

A demonstration of the pathology of phthisis would be incomplete without including some cases of true miliary tuberculosis. This process may be primary in the lungs or secondary as a part of the general infiltration of the serous and mucous membranes, the lymphatic glands, and the viscera. This form of tubercle is characteristically recognizable only in the miliary stage. Its appearance as a number of small, hard, translucent nodules is too familiar to need description. A specimen upon the table illustrates an extensive lymphangitis of the pulmonary pleura, forming a net-work over the pleura. The process, microscopically, shows adenoid tissue in nodular form. Similar cases have been described before the London Pathological Society in 1880.

Enlargement of the Bronchial Glands. Another important part of the phthisical pro-

cess is the enlargement of the bronchial glands. They present a firm, pigmented character, and the connective tissue is usually infiltrated. I have observed in many cases, in individuals suffering from temporary catarrhal conditions of the bronchial mucous membrane, especially when there is a family history of inherited phthisis, but particularly in distinctly scrofulous persons, a set of symptoms referable to enlargement of these glands. These symptoms consist chiefly in an alteration in the rhythm of the breathing, presumably from pneumogastric irritation, apparent inability to fill the chest with air, and a sense of suffocation is felt. Added to these there is *pain* in the back to the right or left of the second dorsal vertebra.

Further detail of the clinical ensemble would carry one away from the pathology of the subject. When the enlargement of the bronchial glands is excessive, it may occasion severe mediastinal pressure, and pain becomes an important clinical symptom, and is of the sort occasioned by mediastinal growth generally. To detect this enlargement during life, Guineau de Mussy has suggested percussion over the spinous processes of the cervical vertebræ in the course of the trachea. Following this line in healthy subjects a distinct tubular sound is elicited by percussion down to the point of bifurcation of the trachea.

Opposite the fifth dorsal vertebra and downward we get the lower-pitched and pulmonary resonance. When the tracheal or bronchial glands are enlarged, the tubular sound over the upper dorsal vertebræ is replaced by dullness, which may contrast sharply above with the tracheal and below with the vesicular resonance. The result of bronchial pressure upon the pulmonary tissues is best marked when the processes of phthisis are not too extensive, also in interstitial phthisis, or in cases where there is marked bronchitic complication. In these cases the lumen of the bronchi are seriously diminished, and vesicular air-supply is interfered with. Consequently emphysema, with or without asthma, atelectasis, or a very intractable bronchitis may occur.

I will not describe the morbid process of phthisis in detail. The involvement of an entire lung is simply the filling up of the parenchyma with peri-bronchial product, or with the results of the desquamative pneumonic or interstitial process. And as one or the other of these predominate so do we

have peri-bronchial, fibroid or catarrhal phthisis. Another interesting, although not demonstrable, incident in the pathology of phthisis is hemorrhage. Bleeding from the lungs occurs both early and late in the history of cases. The late hemorrhage is easy to explain, being nearly always due to ulceration of the blood-vessel walls. The cause of early hemorrhage is less simple; it is possible that in cases of phthisis there may be mal-nutrition or fatty degeneration of the blood-vessel walls, rendering rupture under conditions of increased arterial tension in the lungs an easy circumstance. It may also be the result of tubercular infiltration of the muscular walls which is followed by rupture of the blood-vessels. Cavities in phthisis are the result of several processes. They occur (a) by a slow or rapid process of fatty degeneration, followed by ulceration; (b) as the result of chronic bronchitis and softening of bronchial tissue, with subsequent yielding to traction from without, for instance in broncho pneumonia or fibroid phthisis; (c) abscesses as a sequence of acute lobar pneumonia, following hepatization or purulent infiltration; (d) as the direct result of gangrene, itself the immediate consequence of wounds of the lung or blood-poisoning, or of emboli. Local gangrene on a small scale occurs sometimes around cavities in lungs or in the bronchial tubes, and may give rise to temporary fetor of breath, but is not likely to lead to fallacious inferences, chiefly because of its temporary character and the absence of permanent concomitant symptoms. It naturally follows that there are two locations for vomicae, the pulmonary and bronchial tissues. Specimens illustrating the various forms of cavities are upon the table. The limits of a paper designed to open a discussion on phthisis will not permit me to dwell upon the bearing of these pathological changes upon physical diagnosis. I will therefore close with a brief resumé of the general clinical symptoms which define the diagnosis of the various sorts of cavities.

Phthisical cavities commonly are situated in one or both lungs, and are indicated as a development in a train of symptoms which include as prominent features gradual emaciations, persistent loss of weight by reason of mal-assimilation of food, more or less frequent hemorrhage and hectic, frequent pulse, hacking intermittent cough, nummular sputum, expectorated in varying amounts throughout the twenty-four hours, and not periodically as in bronchial dilatations nor

inaugurated by a gush of pus and mucus as in abscess.

Cavities of the Nature of Abscesses. The pathology of these cavities, with its coincident clinical history, is not that of phthisis. The history of these cavities is either recovery by contraction (especially after wounds), or more frequently the abscess grows larger and larger until the entire lung may be destroyed, in this respect resembling phthisical cavities. Where death occurs it is by exhaustion and hectic; where recovery takes place it is by free opening externally or internally, and evacuation of the contents. At times the small amount of constitutional disturbance, slight degree of emaciation, good pulse, easy breathing, slight cough, and healthy complexion, are in noticeable contrast with the physical signs. Cavities of the nature just described are mostly located in the base of the lungs.

Cavities due to Bronchial Dilatation. Frequently for years the general health is almost unimpaired, and it is never so proportionately to the degree indicated by the physical signs. There is no hemorrhage or night-sweats, and emaciation is not a prominent symptom. The same physical signs persist for months or years unchanged, contrary to the history of most phthisical cavities, which continually alter with the advancing malady. The expectoration of bronchial dilatation is more abundant, fluid, and purulent than in catarrhal phthisis, and is usually brought up in the morning or evening by the cupful. It is not a constant spitting of nummular sputa, as in true consumption. In chronic cases the expectoration may become so fetid as to generate suspicions of gangrene; the cough is harassing, but is often relieved if the bronchial cavity is thoroughly emptied.

PHILADELPHIA, PA.

DR. VICTOR C. VAUGHAN, the senior editor of the Physician and Surgeon, has been appointed a member of the Michigan State Board of Health. This is a very good thing for the Michigan State Board of Health, as well as a merited compliment to our learned and accomplished confrère.

THE LONDON PRACTITIONER commences a new volume with the January issue, with cut edges, whereby its appearance is improved, and the comfort of those who read it much augmented.

Miscellany.

HURRY, WORRY, AND WASTE.—Attention is every now and again called to the many irresistible proofs which exist that there is something radically wrong in our modern mode of working, and rarely a week passes without some signal collapse in the ranks of our foremost men. (*Lancet*.) An endeavor has been made to show that the cause of that brain-wreckage which so commonly occurs among statesmen and politicians is the bad habit of turning night into day, which has been formed by the British legislature. The truth is, however, that the breakdown of public men is not due to any special cause. They are affected, as the ordinary members of modern communities are affected, by the hurry, worry, and waste that are characteristics of the age in which we live, and which pervade all classes and sections of the community. The demon "overwork"—erroneously so called—is as active among commercial men who go to bed at ten or eleven o'clock as among statesmen who sit up hearing and making speeches until the small hours. Side by side with this fact must also be set another, namely, that as a rule the votaries of fashion and gayety sit up a good deal later than members of Parliament, and yet do not suffer half so much. In truth we must look below the surface if we would search into the deep effective cause of the troubles we lament. It is not "overwork" but worry that kills. Our men of brain might do a great deal more than they do if only they were less feverish in their haste, less harassed by worry, and less wasteful of energy. We are all too much in a hurry about what we do. We have too many irons in the fire, too much business on hand at the same instant, and are far too energetic in our endeavors. With deliberation, calmness, and such reserve of strength as result from perfect restraint, a man may do an infinity of work without either trouble or injury. Breathless haste, eager anxiety, and an excessive expenditure of energy are the outcome of modern activity, whether in this country or on the Continent. The system of "quick returns" has been the bane of literature, almost extinguishing it and substituting in its place "journalism." The same system has revolutionized thought and science, and it is rapidly undermining the human constitution. We are impatient for results. Speeches are made with the knowledge that

they will appear in print in a few hours, and that if any thing is omitted the deficiency will be criticised by some watchful opponent in the press. Every opportunity must be seized as it presents itself, or it will be lost. It follows that statesmen and politicians are kept on the strain of sustained attention, and their brains are for many hours in the twenty-four, whether in or out of Parliament, in a condition of ferment. The brains of speculators on the Stock Exchange, and even the brains of merchants in their private rooms are equally taxed, and in the same way. All classes of the community share the turmoil. The period is one of brain-wearing impetuosity, of hurry, worry, and waste—the waste of cerebral energy and nerve-force. The higher nervous centers are kept incessantly at work, and become, as it were, overheated, so that it is impossible they should quiet or cool down in the brief intervals of respite allotted to repose. Too often they do not rest even in sleep. The brain only dozes instead of sleeps, and as a result there are dreams of the recent day's work, that infallible symptom of impending mischief. The only marvel is that, looking to the utterly unphysiological character of our mental and nervous habits of work, the number of sudden failures is not greater than it is, and that we have not a larger percentage of brain-mortality to deplore.

M. GAMBETTA'S EYE.—So many stories have been told concerning M. Gambetta's eye that it becomes necessary to reestablish the true facts of the case. The most popular account is that M. Gambetta, when quite a boy, destroyed his eye because his father refused to take him away from school; and this is related as a proof of his determined character. This version has, however, the disadvantage of being absolutely false. The injury was due to an accident. A tool escaped from the hands of a workman in a turner's shop and struck Gambetta in the face, blinding him in one eye. Gambetta was but a boy then. In the course of years the anterior part of the globe gradually dilated and became so large that he could no longer close the eyelids. In 1867 Gambetta was introduced, by his friend Dr. Fienzal, to the celebrated oculist, De Wecker, who declared that the wounded eye must at once be excised. De Wecker describes the operation, which he performed, in the *Gazette Hebdomadaire de Chirurgie*. Gambetta, who was then living in a very

modest apartment in the Rue Bonaparte, displayed great fortitude. Ether was administered and acted with exceptional rapidity. The operation was most successfully and promptly concluded. The eye, which was pear-shaped, had grown to double its normal size, and its antero-posterior diameter measured nearly five centimeters. In three days Gambetta was able to quit his bed, and he was very soon completely cured. De Wecker preserved the eye, but he ultimately lent it to the renowned histologist, Professor Iwanoff, remarking at the time that it was the eye of a man destined, he was sure, to enact an important part in the history of his country. Two years ago Professor Iwanoff died at Mentone, having still in his possession Gambetta's eye. This relic, together with Professor Iwanoff's collection, was handed over to his most devoted pupil, the Duke Charles of Bavaria, brother of the Empress of Austria and of the ex-Queen of Naples. Thus the eye of the statesman and patriot who, as Dictator, contributed more than any one else to raise armies and resist the German invasion, is now in the hands of a German prince!

AMERICAN PUBLIC HEALTH ASSOCIATION. The next meeting of this association will be held in Detroit during the second week in November, 1883. The executive committee announces the principal topics for discussion to be, (1) The best method of collecting and publishing vital statistics. (2) The etiology of malaria. (3) Food preservation and adulteration, and (4) The physics of house-drainage.

THE RENSSELAER COUNTY MEDICAL SOCIETY AND THE NEW CODE.—At the stated meeting of the Rensselaer County (N. Y.) Medical Society, held in Troy, N. Y., on February 13th, the society voted to stand by the Code of the American Medical Association and elected delegates to the association. The county society thus takes open issue with the State society.

CORRECTION.—In the title of Dr. F. Peyre Porcher's interesting communication in our issue of the 17th ultimo, *Didelphus* should have been *Didelphys*, and in the text the words *Philadelphia Transactions* should be *Philosophical Transactions*.

By authority of the Board of Councilors of the Massachusetts Medical Society, the Columbus Medical College, of Columbus,

Ohio, has been stricken from the list of medical colleges whose diplomas are recognized for admission to the society.

THE POTATO-FAMINE IN IRELAND.—The papers now appearing in the Freeman's Journal give a terrible description of the misery and want from which the poorer people of some parts of Ireland are suffering. Whole villages are desolate, and men, women, and children have died, and are daily dying, of actual deprivation of food. Again the Irish potato-crop has failed, and again, with its periodical persistence, famine stalks through the unhappy land.

DR. GEORGE M. BEARD.—His passion for psychological analysis, his ruling passion, it might be called, says the British Medical Journal, was strong in death, for a few hours before he passed away he said to those who watched by his bed: "O, that I had the strength to record the thoughts and feelings of a dying man! What an interesting chapter would the story of the struggle I am going through make."

COMPULSORY VACCINATION IN GERMANY. Dr. Robert Koch has expressed himself strongly in favor of the present movement in Germany which proposes compulsory vaccination. He thinks the dangers of transmitting syphilis and scrofula are almost infinitesimal.

TIT, BUT NOT TAT.—If any one is so wicked as to poison his grocer who brings him food every day, the severest penalty of the law would be enforced; but if your grocer poisons you by adulterating your food, ten chances to one no notice will be taken of it.—*Ex.*

A POST-GRADUATE SCHOOL has been established in Philadelphia. The corps of instructors includes a number of gentlemen of well-known ability as writers, teachers, and practitioners.

MUSTARD AND MOLASSES.—Dr. Tyson, of Philadelphia, recommends the addition of molasses to mustard in making plasters. This furnishes a mild, persistent counter-irritant, which can be worn for hours.

THE LIBRARY OF THE LATE DR. GEO. M. BEARD.—We learn that the library of the late Dr. Geo. M. Beard is being catalogued with a view to disposal by auction.

The Louisville Medical News.

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LUNSFORD P. YANDELL, M.D., - - - }
L. S. McMURTRY, A.M., M.D., - - - } Editors.

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ANTISEPTIC TREATMENT OF FEVERS.

The thoughtful observer of modern medical inquiry can not but be struck with the tendency, as manifested in the most recent medical and surgical works, in the medical press, and in the proceedings of medical societies, to place pathology on a germinal and fermentative basis. Recent researches in pathology are being propelled toward one point as the basis of both external and internal pathological processes. The germ theory, so long dominant in surgical pathology, is now penetrating the domain of internal pathology, and for some time past one after another of the zymotic and infectious diseases has been attributed to one or another form of low organism as its pathogenetic cause. The researches of Koch in connection with the tubercular process, of Ekland in scarlatina, of Pasteur in several infectious diseases, all following hard upon Mr. Lister's brilliant researches in germinal pathology, have given an impetus to this line of inquiry which is now rapidly pervading every department of pathology. Already we are told of a bacillus of syphilis which plays a similar role in that infection to the bacillus of tubercle in phthisis. A certain form of bacteria is claimed to be at the basis of the specific character

of gonorrheal pus. As a natural sequence of these pathological doctrines comes a distinctive school of therapeutics. Our German confrères have for some years tended toward a heroic method in the treatment of the acute infectious diseases, which is the resultant of these growing ideas in pathology. It is doubtless the pursuit of these methods which induced Liebermeister to advocate the treatment of typhoid fever by large doses of mercury. The same views relative to the treatment of the zymotic affections pervade the recent treatise of Dr. Bartholow on the Practice of Medicine. A careful student of German medical literature, and tending toward that method of investigating morbid processes, Dr. Bartholow advocates the internal administration of tincture of iodine and carbolic acid in the class of diseases mentioned, thus following, somewhat tentatively perhaps, the germ theory in pathology and therapeutics. Dr. Whittaker, of Cincinnati, whose studies in pathology and high attainments in the clinical investigation of diseases entitle his views to the highest consideration, is also an eloquent advocate and earnest practitioner in the same school of pathology. These gentlemen, not having passed the age of innovation, may be mentioned as fair exponents of the most modern views of pathology in this country.

At a recent meeting of the Harveian Society, of London, a paper was read on the Treatment of Fevers and Exanthemata by Antiseptics, by Dr. H. C. Stewart, of which the following is a synopsis:

The author said that his attention had first been directed to this subject in the year 1837, when, as a student, he saw cases of glanders and farcy treated with creasote by the late Dr. Elliotson with considerable success. Since that date he had treated cases of smallpox, some of them of the most virulent nature, with sulphite of soda, the results being decidedly favorable. He found that this drug cut short the usual periods of the different stages; that maturation began and ended earlier under its influence, and that the scabs were more quickly thrown off, and with less pitting. For scarlet fever he used a linctus, composed of one part of sulphurous acid to seven parts of

honey, which combination he found very efficacious for the relief of the throat-distress in scarlatina anginosa. Measles, typhoid fever, diphtheria, and erysipelas, treated with the sulphite of soda or with sulphurous acid, quickly subsided. Salicylic acid, combined with potash, soda, or ammonia, was found useful in catarrh, influenza, and the milder cases of scarlet and typhoid fevers, and measles; but, in the severer cases, the sulphites were to be preferred. The author then quoted M. Ramonet, of Algeria, and M. Desplats, of Lille, who had treated many cases of typhoid fever successfully by enemata of solutions of carbolic acid, of a strength varying from one to fifteen grams to one hundred and fifty grams of water. He mentioned the discovery by Ekland, of Stockholm, of a vast number of peculiar cellular bodies in the blood and urine of scarlatinal patients. This discovery had recently been confirmed by Dr. Ochterlony in America; and, if the views of these observers were correct, the infective material of scarlet fever has been discovered.

The British Medical Journal of the 10th ultimo editorially directs attention to the discussion in France of the carbolic-acid treatment of typhoid fever, the recent epidemic of typhoid in Paris having furnished ample opportunities for exhibiting the various methods of treating this disease. The antiseptic treatment of enteric fever has its advocates in France as well as in Germany, America, and England, though it is evidently less extensively adopted in the latter country.

Thus it will be seen that the germ theory has pervaded the pathology and therapeutics of the present as did the humoral theory in its day and generation. The question for consideration is, will it verify practically at the bed-side those brilliant expectations which are based on investigation in the pathological laboratory? This is the test which all practitioners will regard as the true one, and it is the only one which will be satisfactory.

And now for a few comments on the tendency of modern pathology and therapeutics as exhibited in the antiseptic treatment of fevers. Only a few years ago Lister and others in Great Britain, with Volkmann and other able pathologists and surgeons in Germany, advocated with equal enthusiasm the antiseptic system in sur-

gery. All that now remains, according to the best authorities, of the entire system is the demonstrated power of cleanliness, and particularly by means of perfect drainage, in the treatment of wounds and abscesses. The spray and the omnipresent carbolic acid have disappeared from their potential positions in surgical operations and surgical dressings. And now, is a like result to follow the antiseptic treatment of fevers? Let it be remembered that this is the same theory applied to internal pathology which so long held sway in external pathology.

Is it not essential before adopting the antiseptic treatment of fevers to demonstrate that the bacteria and other organisms found are the causes and not the mere accompaniments of the pathological process? And besides does not the presence of such organisms as the bacillus of tubercle show that through such means disease *may* be transmitted rather than that disease *is* transmitted from one individual to another? In other words, in all these pathological doctrines are not we taking a great many *presumptions* to be *facts*?

Nothing is more deceptive in science than the taking of impressions for facts. While medicine is not as yet an exact science, the more we strive to make it such the more accurate, and hence the more brilliant, will be its practical results. Many investigators as well as many practitioners make an observation which is apparently the result of certain causes, and claim that the relations are those of cause and effect. A physician gives a remedy, and at once his patient recovers. To him prognosis is *couleur de rose* in that disease, and his views concerning a certain malady are determined by the results of a few cases. The elder Dr. Warren Stone, of New Orleans, was accustomed to remark that physicians after seeing five cases of yellow fever believed they knew all about the disease, but after seeing five hundred cases they were usually satisfied that they knew nothing about it. This system of rapid deduction upon insufficient facts is the bane of

medical science in pathology as well as in therapeutics. It is this which begets fashions in medical and surgical therapeutics. It is unfortunate that enthusiasm, in so far as it is emotional, can not be eliminated, and nature interpreted by judicious, deliberate, and exact methods. It is to such a spirit of inquiry we must look for the proper estimation of the dominant theory in modern pathology and therapeutics, the latest expression of which is found in the antiseptic treatment of fevers.

THE STATE BOARD OF HEALTH.

We would direct the attention of the members of local and county boards of health in Kentucky to the call of the Kentucky State Board of Health for a convention of the members of these organizations, to be held in this city on the seventh inst. It will be welcome intelligence to the profession, as well as the public, to know that the State Board is waking up to the importance of the duties with which it is intrusted. When the convention assembles we hope that the representatives of the State Board will be prepared to submit plans for more substantial work than has hitherto characterized that body. Much complaint has been made of the inadequacy of the present appropriation with which the board is furnished. This is very well founded, but it must be realized that an increase of this appropriation depends upon the manner in which the fund is utilized. In consequence of the inefficiency and impracticable nature of the work of the board, the bill to increase the appropriation failed at the last session of the General Assembly. The present appropriation is quite sufficient to justify some valuable work, and the salary of the secretary will compensate that official for the expenditure of some time and labor in executing the plans and investigations recommended by the board. Both the public and the profession will be quick to recognize and value efficient practical

work bearing upon any of those functions of a State Board of Health which are of such inestimable importance in the public economy. We hope the convention will be largely attended, and that it may prove an eminent success.

Medical Societies.

THE TRI-STATES MEDICAL SOCIETY.

One of the most important medical events of the year will be the meeting of the Tri-States Medical Society at Indianapolis in September. Already the work for this convention is far advanced, owing to the almost perfect organization of the society.

Some years ago the society found that the hospitality of the citizens in the places of meeting to some extent interfered with its proper work, and that long papers crowded out shorter and better ones. It was then resolved that the society accept of no banquets, etc., and that all papers be limited to twenty-five minutes.

From that time the increase in interest and attendance was marked, and now, during each of the three days of the meeting, three sessions are held, fully occupied with short, practical papers and discussions, the authors having been previously selected by the Committee on Programme. The Tri-States is in exact harmony with the different State and other local societies, leaving to them all matters of legislation and ethics, and requiring that its members be also members in good standing of one or more of these.

The territory embraced is Indiana, Kentucky, and Illinois, to which Cincinnati and St. Louis have been added. At the last meeting there were many visitors from other States.

The Tri-States holds front rank in reputation in both Europe and America as a working society, and work has been the secret of its success.

For further information address any of the officers: Dr. William Porter, St. Louis, president; Dr. G. W. Burton, Mitchell, Ind., secretary; Dr. F. W. Beard, Vincennes, Ind., treasurer; Dr. T. B. Harvey, Indianapolis, chairman of Committee of Arrangements; Dr. T. L. Thompson, Indianapolis, chairman of Committee on Programme.

Respectfully, G. W. BURTON, Sec.

Bibliography.

Transactions of the American Ophthalmological Society. Eighteenth Annual Meeting, held at Lake George, July, 1882. Published by the Society. New York. 1882. Pp. 442.

It is the impression of many that the American Ophthalmological Society, holding its meetings in midsummer at the most attractive summer resorts, furnishes its members a happy re-union every year amid pleasant social surroundings and attractive natural scenery. It is fair to presume that when our readers see the notice of the annual meeting in the very height of the dog-star's reign, they picture the ophthalmic surgeon in the midst of iced beverages on cool piazzas and in shady nooks, rather than wrestling with the intricate problems of accommodation and refraction. But the injustice of such impression is apparent on taking up the handsome volume of this society's transactions. While we have no doubt that our confrères give due attention to the reduction of body heat by the most agreeable methods during these annual sessions, yet before leaving home they earn by substantial work the pleasurable relaxation which the summer holidays invite. The papers presented are highly creditable to the able cultivators of this branch of surgery in America.

The following is a list of the papers read at the annual meeting of 1882:

Dr. Edward Reynolds: In Memoriam.

Pulsating Vascular Tumor of Orbit, Eyelid, Temple, and Forehead, Treated by Electrolysis (with woodcuts). By Charles Stedman Bull, M.D., New York.

Atrophied Remains of the Hyaloid System Attached to the Posterior Pole of the Lens and Detached from the Papilla (with woodcut). By W. W. Seely, M.D., Cincinnati, Ohio.

Serous Effusion into the Vitreous. By W. W. Seely, M.D., Cincinnati, Ohio.

Apparent Disappearance of Iris after Extraction of Cataract. By R. J. McKay, M.D., Wilmington, Del.

Non-pulsating Exophthalmus, with Recurring Thrombosis of Orbital Veins. By R. J. McKay, M.D., Wilmington, Del.

Hereditary Atrophy of the Optic Nerves (with woodcut). By William F. Norris, M.D., Philadelphia, Pa.

The Influence of the Faradic Current in the Treatment of Vitreous Opacities, with Cases. By William S. Little, M.D., Philadelphia, Pa.

Report of a Case of Glioma in a Patient Twenty-one Years of Age. By C. S. Merrill, M.D., Albany, N. Y.

A Case of Anesthesia of the Retina, with Concentric Limitations of the Fields of Vision—Recovery through Inhalations of Nitrite of Amyl (with woodcuts). By Richard H. Derby, M.D., New York.

Remains of the Hyaloid Artery attached to the Crystalline Lens—Anesthesia of the Retina. By William S. Little, M.D., Philadelphia, Pa.

Circumscribed Absorption of the Lens, apparently of Traumatic Origin, without the Remainder of the Lens becoming Opaque (with chromolithograph). By Samuel Theobald, M.D., Baltimore, Md.

A Fragment of Glass in the Eye, probably in the Ciliary Body, for Ten Years, without producing Serious Consequences. By Samuel Theobald, M.D., Baltimore, Md.

A Case of Extensive Hemorrhage between Choroid and Sclerotic. By G. Hay, M.D., Boston, Mass.

A Peculiar Case of Alopecia of the Eyelids (with illustrated plate). By F. Buller, M.D., Montreal, Can.

Removal of Foreign Bodies from the Cornea. By Henry D. Noyes, M.D., New York.

Three Cases of Tumor of the Eye (with woodcuts). By Henry D. Noyes, M.D., New York.

Contribution to the Clinical History of Metastatic Irido-Choroiditis. By H. Knapp, M.D., New York.

A Simple Test for Simulated Monocular Blindness. By G. C. Harlan, M.D., Philadelphia, Pa.

Sarcoma of the Lachrymal Gland (with woodcuts). By G. C. Harlan, M.D., Philadelphia, Pa.

A Case in which an Attack of Acute Inflammatory Glaucoma was Immediately Followed by Inflammation of the Brain. By Charles J. Kipp, M.D., Newark, N. J.

Embolism of the Central Artery of the Retina (with woodcuts). By W. F. Mitten-dorf, M.D., New York.

Ophthalmic Notes: (1) Double Glaucoma Fulminans. (2) Extraction of a Piece of Iron from the Lens by Means of the Permanent Magnet. By S. B. St. John, M.D., Hartford, Conn.

Premature Delivery for the Prevention of Blindness. By Edward G. Loring, M.D., New York.

Case of Osteoma of the Conjunctiva (with woodcut). By Edward G. Loring, M.D., New York.

An Improved Means of Oblique Illumination—A Corneal Condenser (with woodcut). By Edward G. Loring, M.D., New York.

Improved Trial Frames (with woodcut). By G. C. Harlan, M.D., Philadelphia, Pa.

Any of our readers interested in any of these topics can doubtless secure a copy of the paper by addressing the author. The volume contains quite a number of illustrations which are excellently executed. We congratulate the society upon the excellent work accomplished. The volume before us is a handsome contribution to American ophthalmology.

THE SCHOOL OF SALERNUM; a Historical Sketch of Medieval Medicine. By H. E. Handerson, A.M., M.D.

This pamphlet of sixty pages is the outgrowth of a paper read before the New York County Medical Society, by Dr. Handerson, in 1878. It gives in concise form the origin, growth, and influences of the ancient medical school which flourished at Salerno centuries ago. The preparation of this essay required much laborious study in addition to thorough knowledge of ancient history and the classics. This pamphlet is instructive, interesting, and a valuable paper for reference.

A SUCCESSFUL CASE OF LUMBAR COLOTOMY, or Excision of a Stricture of the Descending Colon through an incision made for a left Lumbar Colotomy, with remarks. By Thomas Bryant, F.R.C.S., surgeon to and lecturer on surgery at Guy's Hospital, London. Extracted from the Medico-Chirurgical Transactions. 1882.

AMERICAN HERO-MYTHS.—Dr. Daniel G. Brinton, of Philadelphia, senior editor of the Medical and Surgical Reporter, has just published a book with the above title. Dr. Brinton is always interesting and instructive. This book is sure to attract attention.

PRIMARY AND SECONDARY REUNION OF DIVIDED NERVES; being the annual address before the South Carolina Medical Association. By Francis L. Parker, M.D., of Charleston. 1882.

BACTERIA, AND THEIR PRESENCE IN SYPHILITIC SECRETIONS. By Robert B. Morrison, M.D., of Baltimore, Md. 1883. A reprint from the Maryland Medical Journal.

THE TREATMENT OF ACUTE ECZEMA. By George H. Rohé, M.D., of Baltimore, Md.

Selections.

ON ANESTHETICS AND THEIR ADMINISTRATION.—When giving anesthetics, the head of the patient should be kept on a level with the body or on a gradually inclined plane, not doubled forward by too great a number of pillows under the head, for by so doing curves are made in the windpipe, but let the exit from the lungs to the mouth be in one straight line.

To know when the patient is sufficiently under the influence of any anesthetic for the operation to commence, the conjunctival surface should be touched with the tip of the finger, and if no reflex action takes place, shown by the contraction of the orbicularis palpebrarum muscle, a sufficient degree of insensibility has been produced. The corneal surface of conjunctiva is more sensitive than that covering the sclerotic; therefore, if the latter shows insensibility when touched the anesthetic will be found sufficient for ordinary purposes; insensibility of the former being, of course, required for operations upon the eye itself. It must be borne in mind, however, that the conjunctival surface repeatedly touched by the finger eventually loses its sensibility. This fact must be borne in mind by the chloroformist, and first one eye and then the other be touched, or a false impression that the patient is thoroughly anesthetized may be conveyed. Paralysis affecting one side of the body may also occasion loss of sensibility of one conjunctival surface.

Dilatation of the pupils is a sign of the anesthetic having been pushed to a sufficient extent, and the inhaler should be immediately removed from the face.

Flaccidity of the limbs is no sign of cutaneous insensibility.

How long does it take to get a patient under the influence of an anesthetic?

Nitrous-oxide gas will produce insensibility in one minute, but the effect being so transitory it can only be given for operations which can be completed in five minutes. Ether given by any open inhaler will not produce insensibility under eight or ten minutes; when given by Clover's portable inhaler, insensibility can be produced in from three to four minutes, and when preceded by a few inhalations of nitrous-oxide gas in from two to three minutes. But if nitrous-oxide is not used, the space of time occupied in producing insensibility is the same in both of Clover's apparatus. The time

occupied, however, and by any apparatus, is always shorter in the warm weather, and a longer time is required for persons of strong constitution or accustomed to much alcohol, the amount of the anesthetic required varying in a corresponding degree to the vital capacity of the patient.

Chloroform, when used in children and old people, produces insensibility in about two minutes, or rather less.

How long may a patient be kept continuously under the influence of an anesthetic?

Nitrous-oxide gas, as was previously mentioned, can only be given for a space of one minute, therefore ether or chloroform is used when duration is of consequence, and of the two I undoubtedly give the preference to ether, on account of its being a vascular stimulant. Two hours and fifteen minutes is the longest time that I have given ether continuously, but even then after discontinuing the application of the mouth-piece the patient was, of course, considerably longer in a state of unconsciousness, although not entirely insensible, as shown by touching the conjunctiva. In cases where anesthesia is kept up for a long period, shock, partially due to the anesthetic and partially due to the operation, is developed to a greater or less extent, shown by coldness of the surface of the body and extreme prostration. This is best combated by the application of a warm-water bottle to the cardiac region, and subsequently, when the operation is completed, by an egg-and-brandy enema.

Some peculiarities occasionally occur during the administration which are interesting, and should be known to the administrator. The inhalation of ether frequently produces exanthematous patches on the face and upper parts of the body, and I have known a case to be removed from the operating table under the impression that the patient was suffering from one of the eruptive fevers and unfit for operation. The origin of this phenomenon is to be found in paralysis of the vasomotor nerves by the anesthetic. I should mention also that if any skin eruption is present, it is made by the same cause more prominent.

A false impression when feeling the pulse may be very easily conveyed, as in a case I remember, where the patient, lying upon the arm, compressed the main artery and stopped the pulse, greatly to the consternation of the anesthetist. The case was one of removal of a tumor from the right scapula, the radial artery being abnormally situated and absent

on the right side; the patient was suddenly brought over on to the left side for the convenience of the operator, and the left radial was stopped by compression from the weight of the body.

Elevation of the jaw, by pushing the angle of one or both sides forward, acts upon the tongue and gives freer respiration. The converse also is easily seen, as I have frequently demonstrated to the students, that by pushing the lower jaw backward, the breathing can be immediately impeded or altogether arrested. As it is difficult to raise the jaw, both hands being occupied, one holding the pulse and the other the inhaler, I have devised an underchin support which I call jaw compasses, being of that configuration, for the purpose of going behind the angles of the jaw and drawing them forward and upward, the administration by this procedure being considerably assisted. A circular india-rubber band, similar to that used for keeping letters together, passed over the nose-piece of the inhaler and under the symphysis of the chin, will also answer the same purpose.

The administration of anesthetics for cases to be operated upon for the cure of cleft palate are always troublesome, and it is usually found that chloroform for these cases is best. Ether causes not only an increased secretion of saliva, but also increased vascularity, and the mouth being wide open, patients return to consciousness sooner than when chloroform is given. Another difficulty in these cases is the insertion of the mouth-gag, the breathing on its insertion becomes immediately impeded by the tongue being thrown backward at the same time as the lower jaw is depressed. A good mouth-gag is much wanted, its requirements being to keep the mouth open, to draw the tongue forward, and to push the lower jaw forward. The one that most fully meets these requirements is described in the London Medical Record of April 15, 1881.

The use of chloroform is necessary for all operations upon the interior of the mouth (removal of tongue, etc.), for the same reasons as mentioned when speaking of cleft palate. When the mouth has been kept open for some time, I frequently use Clover's chloroform bellows, manufactured by Messrs. Coxeter & Son, whereby a mixture of chloroform and air is blown down the back of the throat.

The question whether anesthetics should be given at all in eye operations is a debatable one, the vomiting from chloroform and

the vascular turgescence from ether being the objections to their use. I consider that anesthetics are always necessary for ophthalmic operations upon children, but never for adults, except in cases of enucleation and for operations upon the eyelids.

Chloroformists should not administer anesthetics for too long a time at one sitting, for the administrator, after giving anesthetics for two or three hours consecutively, becomes somewhat anesthetized himself and lacks that amount of vigilance which he had at the commencement, and ought to have throughout the whole of the administration. This is more especially the case when open inhalers are used. There is in addition great mental strain to the administrator from the anxiety and constant watchfulness entailed.

The element of danger is more often present in rectal operations. Why, I can not say; but undoubtedly I have had, and others also, more anxiety over the administration of anesthetics in these cases. Whether it arises from the fact that *all bloodless operations are dangerous in plethoric individuals*, or whether diseases of the bowel are unusually depressing, and that the high sensitiveness of the rectum requires a greater degree of anesthesia, I am not in a position to say, but the fact remains the same.

In cases of stoppage of the heart's action, in addition to percussion of the heart with the wetted end of a towel, artificial respiration must be immediately commenced, because the stoppage of both factors would make up the whole fatality. Inversion of the body should be always tried if stoppage of the heart's action occur. The head being lowered and the legs elevated, the blood is sent to the upper part of the body; a similar effect is produced, but less quickly, by the application of bandages up the legs. The latter may be adopted with great advantage in operations about to be performed upon anemic patients. Inversion of the body should be maintained until the heart's action is resumed, for success has been found to follow this procedure.

The post-mortem appearances of fatal cases show that hepatization of the lungs with adhesions to the pleural surface, or a fatty heart, or one having adhesions to the pericardium, are more especially antagonistic to successful anesthesia.—*S. Osborn in St. Thomas's Hospital Reports.*

THE TREATMENT OF INFLAMMATION.—The diapedesis of white corpuscles which

occurs in inflammation is produced, according to Cohnheim and Hering, as a sort of mechanical filtration through the wall, but, according to Binz and others, is a vital process intimately connected with the irritability and chemical integrity of those structures. The opinion held as to the nature of the process must, as Binz has lately pointed out, modify considerably the therapeutic method employed. If there is only a mechanical extrusion of the cells through the wall of the vessel, it is of paramount importance, in all internal inflammations, to lessen the blood-pressure. If, on the other hand, there is an independent exit of the corpuscles which adhere to the wall of the dilated vessels, the aim of therapeutic measures must be to lessen their activity. Binz asserts that the white corpuscles only escape when the red corpuscles are passing by the stationary pale ones, and only so long as the latter possess the power of adhering to the wall, and the passage seems to be attended by changes of form similar to those which are presented by the corpuscles outside the vessels. He states that the diapedesis is stopped if the vessel is tied, and it is stopped also on both sides of the ligature, and therefore where the blood pressure is completely arrested as well as where it is in full force. It also stops when the colorless cells are paralyzed by any agent, such as quinine, eucalyptol, iodoform, or salicylic acid, without the heart or the vessels presenting the slightest alteration.—*Lancet.*

SOME POINTS ON THE REDUCTION OF HERNIA.—Dr. J. S. Wight (Proceedings of the Medical Society of the County of Kings):

Seeing that the major operation, or opening the sac, in a case of hernia, is one that may involve great danger, and seeing that the minor operation, in which the sac is not opened, may involve some danger, and seeing that the taxis is a safe procedure, especially when it is successful, any expedients that will enable the surgeon to reduce a greater number of hernia, so that fewer operations will be required, will be the means of saving life. In this statement it is implied that cases of hernia are operated on that do not require an operation, and it must be admitted that it is not good practice to operate on a hernia that can be reduced by taxis.

The method of taxis for reducing a hernia, especially one that is strangulated, that I have adopted and advise, may be described as follows:

1. As far as possible grasp the hernial tumor with one hand; this can generally be readily done, except when the tumor is very large. The right hand will be best adapted for this purpose.

2. Now take hold of the neck of the hernial sac with the thumb and fingers of the left hand in close proximity to the ring of constricting tissues, which can generally be readily distinguished.

3. Then make gentle traction on the hernial tumor by means of the right hand, when two effects will generally supervene: (1) The hernia will be drawn out a little and liberated from the ring of constricting tissues; and (2) some of the fluid contents, and may be some of the solid contents of the sac may be felt going through the hernial canal into the abdominal cavity. As the hand pulls on the tumor it will compress it at the same time, and thus tend to express the contents of the sac. And the contents of the sac will be more apt to be expressed because the hernia is liberated from its constriction.

4. The thumb and fingers of the left hand, as it were, supplement the hernial canal, as they are near the constricting tissues, so that the sac and its contents will be prevented from expanding just outside of the outer end of the hernial canal. In one instance the thumb and fingers will accurately guide the hernial contents into the hernial canal, and in the other instance the hernial contents will swell out around the outer end of the hernial canal. In the latter instance the reduction of the dislocated intestine will be obstructed, and in the former instance its reduction will be greatly facilitated.

5. When the fluid contents of the sac begin to *go back*, then the solid contents of the sac will also begin to *go back*. The left hand of the surgeon must still continue the work it has begun, but the right hand must now, in addition to firmly grasping the hernial tumor, begin to push this tumor toward the external ring in between the grasp of the thumb and fingers of the left hand, when generally, little by little, and sometimes suddenly, the dislocated intestine will be reduced. Of course, the rules of position and relaxation in regard to the patient should be put in force. When this method of taxis is properly carried out it will, no doubt, diminish the number of operations for strangulated hernia.

6. In this place I may draw attention to this method of taxis for the purpose of reducing a hernia when the minor operation is

performed, since the constriction may be outside the neck of the sac. Also I may call attention to the fact that I have sometimes expanded and stretched, or perhaps torn more or less, the constricting band of tissues about the neck of the sac by means of my finger, which has been pushed up under the edge of this band, carrying the tegumentary tissues before it, thus enabling me to reduce a hernia because the canal has been enlarged. At times I have found this a most valuable expedient, and have never known it do any harm.

ON SYME'S AMPUTATION.—(William S. Savory, in the Lancet.)

Every one knows that Mr. Syme attached very great importance to certain details of the admirable operation of amputation at the ankle-joint that goes by his name. He insisted especially upon the position of the incision across the sole. "The foot being placed at a right angle to the leg, a line drawn from the center of one malleolus to that of the other, directly across the sole of the foot, will show the proper extent of the posterior flap. The knife should be entered close up to the fibular malleolus, and carried to a point on the same level of the opposite side, which will be a little below the tibial malleolus." Thus he laid it down, and he dissected the flap off the os calcis from below upward. These directions were for a long while rigidly observed, but of late years surgeons have been less particular in the direction of the incisions. That across the sole is often made obliquely backward at the expense of the flap. The incision across the front of the joint is also varied, sometimes being quite transverse, at others curved toward the toes. With regard to the heel, of course the more obliquely backward the incision of the sole is made the less difficulty will there be in the reflection of the flap, if done from below upward; but it seems to me of importance to preserve at least the whole of the heel, so that it is best to make the incision a vertical one. The thick integument of this region forms so capital a pad on the extremity of the stump that care should be taken to secure the whole of this, and to bring it well forward in the first instance, for during repair and afterward there is a tendency in this to be drawn backward. Of course, it will not be forgotten that after this operation the person stands and walks directly upon the extremity of the stump. With regard to the particular points where the extremities of

the vertical incision should be, some surgeons keep them both on a level with the external malleolus, but I prefer to have them rather more forward—that is to say, on a line with the extremity of the internal malleolus, but not extending higher than the level of the external one, for the base of the flap is thereby so much broader. This is, I think, an advantage, and, so far as I can see, there is no objection to it. But of all changes in the operation I should attach most importance to the way in which the dissection is done. I greatly prefer, after making both incisions, to open the joint from the front, and then to work from above downward. This mode of dissecting out the os calcis is far easier than the original plan of dissecting from below upward, and there is less danger of inadvertently cutting into the substance of the flap. I have adopted this plan now for several years, in many cases, and I can not doubt that it is a much better one of performing the operation. By dissecting out the os calcis from above downward, and so escaping the only difficulty in the operation—that of turning off the heel—there is no temptation, as in the other way, by carrying the first incision obliquely backward, to sacrifice some portion of the flap.

RETENTION OF A DETRUNCATED HEAD AND THE PLACENTA IN UTERO FOR FORTY DAYS.—

This astonishing case is reported in a recent number of the *Archiv für Gynäkologie* by Dr. Alois Valenta. The patient was thirty-five years old, and this was her fourth child. Labor came on at term, the child presenting with the shoulder. A medical man was called, who proceeded first to detach the lowermost arm, and then to bring down the feet. He delivered the body, but could not get the head to follow, so he cut through the neck and left the head behind. Two other doctors were then called in, but all they did was to administer ergot and advise that the patient should be taken to a hospital. This her husband would not hear of, and so nothing was done. Eight days after the medical men had seen her, a midwife was called in; but she did nothing except syringe the vagina with warm water every two or three days. The patient all the time had no bad symptoms—no rigor, no particular pain, no bladder or rectum trouble, ate well, and slept well; the only thing was that she felt weak, and that the lochia stank insufferably. Thirty-eight days after the labor the patient rebelled against marital authority, and had

herself taken to the hospital. When seen there, her pulse was 72, temperature 99.5°. There was no sign of uterine action, and the uterus seemed to have undergone complete involution, being spread like a thin cap over the retained head. Three days after admission, the vagina having been first repeatedly syringed with a three-per-cent solution of carbolic acid, the cervix was dilated with sponge and tupelo tents, and repeated doses of ergot were given. This brought away discharge and small fragments of bone, but the patient felt no pain, although intermittent hardening of the uterus was perceptible. After dilatation, the bones of the fetal head were seized, as they could be got at, with strong polypus forceps and carefully removed. The chief difficulty was found with the parietal bones, which were in such close coaptation with the uterine wall that it was difficult to seize them, and when seized, it was necessary to double them up (a thing not easily done) in order to get them through the cervical canal. About forty bits of bone were taken away. Then the placenta, which looked quite fresh, was detached with the finger and removed piece-meal—a proceeding which occasioned some hemorrhage. The whole operation occupied about an hour and a half. When it was finished, the uterus was washed out with hot water, and ergotine injected subcutaneously. The patient recovered without a bad symptom. Dr. Valenta has only been able to find in literature one case resembling this. This is recorded by Freund. In his case the detached head was retained for ten years, the uterus, as in Valenta's case, showing no inclination to expel it.

ERYSIPELAS.—Erysipelas never comes without a break somewhere in the skin, a solution of continuity. Formerly erysipelas was divided into idiopathic and traumatic varieties, the former supposed to originate of its own accord, while the latter was produced by some accident or surgical injury. Trousseau first showed that erysipelas is always traumatic. The disease shows itself on the skin, sometimes on the mucous membrane internally, but it always stands in connection with the outer world, and is always produced by a solution of continuity. It often begins about the angles of the nose or mouth or eye, from a slight abrasion frequently overlooked or perhaps healed over at the time. It is most frequent in this region, where it is called erysipelas faciei. Erysipelas capitis generally begins, too, in

the face and then travels up. Sometimes the break is healed up and it might be thought that it entered the unbroken skin. This is never the case. There is always a delicate scar sufficient to allow of the permeation of the germs from which the disease develops. It does not necessarily complicate the healing process of a wound, though it sometimes leads to gangrenous destruction. Busch reports interesting cases of malignant tumors, especially lupus, healed rapidly by an erysipelas. The new infection substitutes and supplants the old inflammation or disease process.—*Dr. J. T. Whitaker in Lancet and Clinic.*

WINTER CHOLERA.—The disease to which this significant name has been applied appears to be coming into notice at the present time. (Medical News.) In the health bulletins for the week ending January 27th, we meet with it in two large sections of the country. A Michigan report states that there are many cases of winter cholera, which comes on very suddenly and is severe; and Dr. Bryce, Ontario Board of Health, says: "Among the peculiar features of this extremely cold week, is the fact that in District IV, whence are reported over seven hundred cases of disease, diarrhea not only becomes one of the six most prevalent diseases, but it amounts to five per cent of all the diseases reported. Extreme cold as well as extreme heat would seem to have the same tendency; but while we must suppose that the former acts by producing internal congestions, the latter induces the disorder by the irritative effects of fermentative changes." Two hundred and fifty cases are reported at Waterbury, Conn., and the disease is thought to be due to the snow-water in the city reservoirs.

THE TREATMENT OF DYSENTERY.—Mr. F. Rawle, M. R. C. S., describes, in the British Medical Journal, his method, as follows: Having placed the patient between warm blankets, a pint and a half of warm water, at a temperature of 90° Fahr., is injected. This is seldom retained longer than a few minutes, but is pronounced very grateful by the patient. When the water has soothed the mucous membrane of the colon and rectum, and brought away any effete matter, two ounces of the following is administered: Quinine sulphate, ten grains; compound tincture of camphor, four drams; decoctum amyli two ounces. Mix, and, when milk-warm, inject. This is generally retained,

but, if ejected, may be repeated in an hour or so. This is very grateful to the patient, the effect is like magic. If griping be felt over the region of the epigastrium, half-dram doses of chlorodyne, in some aromatic water should be given. The diet should be of the most soothing kind—jellies, isinglass, linseed, toast and barley water *ad libitum*. Ipecacuanha appears of little service, and Mr. Rawle has discarded it from his treatment. Warm turpentine stupes on warm flannels over the hypogastrium prove very beneficial.

CORROSIVE SUBLIMATE.—This well-known and powerful drug, whose virtues as an antiseptic were first made known to the world by R. Koch, is now rapidly coming into use. Tarnier employs it freely in his maternity hospital. Every attendant on entering the labor ward must wash the hands and arms in a solution of corrosive sublimate (one in one thousand). The patient's genitals are bathed in a solution of the strength of one in two thousand; this is also the strength required for vaginal injectures. He appears to be well pleased with the results. Billroth has also been employing it as a surgical dressing in a case of suspected anthrax. A patient admitted into hospital had been in attendance on a sick ox, from the rectum of which he had removed masses of coagulated blood, passing the hand deeply into the cavity. Afterward pustules made their appearance on the dorsum of the hand. It was this condition of the hand, with the attendant history, that led Billroth to a trial of corrosive sublimate, apparently of the strength of one in five thousand. No fever had set in after several days' employment of the antiseptic.—*Medical Press.*

ARMY MEDICAL INTELLIGENCE.

OFFICIAL LIST of Changes of Stations and Duties of Officers of the Medical Department, U. S. A., from February 17, 1883, to February 24, 1883: Cleary, Peter J. A., Captain and Assistant Surgeon, granted leave of absence for four months on account of sickness, to take effect January 3, 1883, in extension of his authorized absence on certificates of disability. (Par. VI, S. O. 40, A. G. O., February 16, 1883.) Heizmann, Chas. L., Captain and Assistant Surgeon, to be relieved from duty in the Department of the Columbia. (S. O. 12, Department of Columbia, February 8, 1883.) Tesson, Louis S., Captain and Assistant Surgeon, to be relieved from duty at Fort Clark, Texas, and assigned to duty at Fort Ringgold, Texas, as Post Surgeon. (Par. V, S. O. 20, Department of Texas, February 21, 1883.)